

CLAIMS

1. An electronic apparatus comprising:

an interface section that is connected to a command/response line for receiving a command from a host device and transmitting a response to the host device and a data line for transmitting and receiving data according to the command as required after transmitting and receiving the command and the response to and from the host device via the command/response line, the data being transmitted or received while the data is divided into data blocks with a block size specified by the host device when the data length is a predetermined length or more;

a data buffer that stores the data; and

a storage section that stores information about the block size when the interface section receives a command for specifying the block size of the data block from the host device;

wherein when the interface section receives a command (hereinafter, "block size setting command") for transmitting data including information about the block size of the data block via the data line from the host device, and when the block size is larger than a capacity of the data buffer, the interface section transmits a response including error information about incapability of accepting the block size at a time which has a predetermined relation

to the block size setting command.

2. The electronic apparatus according to claim 1, wherein
the time which has a predetermined relation is the
5 time when the electronic apparatus receives a command for
actually transmitting or receiving the data blocks with the
block size created by dividing the data with the
predetermined length or more from the host device, and

the electronic apparatus transmits the response to the
10 command with the error information included in the response,
and does not accept the data blocks when receiving the
divided data blocks from the host device.

3. The electronic apparatus according to claim 1, wherein
15 the time which has a predetermined relation is the
time when the electronic apparatus receives a command next
to the block size setting command transmitted from the
host device,

the electronic apparatus adds the response including
20 the error information to the response corresponding to the
next command, and then transmits the response.

4. The electronic apparatus according to claim 1, wherein
in case that the interface section receives a command
25 including information about the block size of the data

block from the host device via the command/response line and the block size is larger than the capacity of the data buffer,

when the electronic apparatus receives a command for actually transmitting or receiving the data blocks with the block size created by dividing the data with the predetermined length or more from the host device, the electronic apparatus transmits a response corresponding to the command and including error information about incapability of accepting the block size, and when the divided data blocks are transmitted from the host device, the electronic apparatus does not accept the data blocks, or

the electronic apparatus adds information about the error response corresponding to the command for specifying the block size to a response corresponding to a next command transmitted from the host device, and then transmits the response.

5. The electronic apparatus according to claim 1, which is an IC card.

6. A host device comprising:

an interface section that is connected to a command/response line for transmitting a command to an

electronic apparatus and receiving a response from the electronic apparatus, and a data line for transmitting and receiving data according to the command as required after transmitting and receiving the command and the response to
5 and from the electronic apparatus via the command/response line, when the data is a predetermined length or more, the interface section transmitting and receiving data blocks with a predetermined block size created by dividing the data, and transmitting a command for specifying the block
10 size to the electronic apparatus,

wherein the interface section transmits a block size setting command for transmitting data including information about the block size of the data blocks via the data line to the electronic apparatus, after the data are transmitted,
15 at the time which has a predetermined relation to the block size setting command,

when receiving a response including error information about incapability of accepting a specified value of the block size of the data block from the electronic apparatus,
20 the interface section transmits a command for inquiring about a data capacity of a data buffer to the electronic apparatus, determines a new block size which is not more than the capacity of the data buffer in the electronic apparatus based on the response, and transmits a command
25 for specifying the new block size to the electronic

apparatus.

7. The host device according to claim 6, wherein the time which has a predetermined relation is the time when the host device transmits a command for actually transmitting or receiving the data created by dividing the data with the predetermined length or more according to the block size to the electronic apparatus.

8. The host device according to claim 6, wherein the time which has a predetermined relation is the time when the host device transmits a command next to the block size setting command to the electronic apparatus.

9. A control method of an electronic apparatus, comprising the steps of:

receiving a block size setting command transmitted from a host device via a command/response line, the block size setting command being a request for transmitting data including information about a block size of the data block via a data line when data with a predetermined length or more are divided into a plurality of data blocks and transmitted or received, transmitting a response corresponding to the block size setting command via the command/response line, and receiving the data;

determining whether the block size is larger than a capacity of a built-in data buffer; and

transmitting a response including error information about incapability of accepting the block size at the time
5 which has a predetermined relation to the block size setting command.

10. The control method of the electronic apparatus according to claim 9, wherein

10 the time which has a predetermined relation is the time when the electronic apparatus receives a command for actually transmitting or receiving the data blocks with the block size created by dividing the data with the predetermined length or more from the host device, and

15 the electronic apparatus transmits the response to the command with the error information included in the response and does not accept the data blocks when receiving the divided data blocks from the host device.

20 11. The control method of the electronic apparatus according to claim 9, wherein

the time which has the predetermined relation is the time when the electronic apparatus receives a command next to the block size setting command transmitted from the host
25 device, and

the electronic apparatus adds a response including the error information to the response corresponding to the next command, and then transmits the response.

5 12. The control method of the electronic apparatus according to claim 9, further comprising a step of:

receiving a command including information about the block size of the data block from the host device via the command/response line,

10 wherein in case that the determination is made that the block size is larger than the capacity of the data buffer at the determining step,

when the electronic apparatus receives a command for actually transmitting or receiving the data blocks with the
15 block size created by dividing the data with the predetermined length or more from the host device, the electronic apparatus transmits a response corresponding to the command and including error information about incapability of accepting the block size, and when the
20 divided data blocks are transmitted from the host device, the electronic apparatus does not accept the data blocks, or

the electronic apparatus adds information about the error response corresponding to the command for specifying
25 the block size to the response corresponding to the next

command transmitted from the host device, and then transmits the response.

13. The control method of the electronic apparatus according to claim 9, wherein the electronic apparatus is an IC card.

14. A control method of a host device, comprising the steps of:

transmitting a block size setting command via a command/response line to an electronic apparatus, the block size setting command being a request for transmitting data including information about a block size of the data block via a data line when the data with a predetermined length or more are divided into a plurality of data blocks and transmitted or received, receiving a response corresponding to the block size setting command via the command/response line, and transmitting the data;

transmitting a command for inquiring about a data capacity of a data buffer to the electronic apparatus when a response including error information about incapability of accepting the block size is received at the time which has a predetermined relation to the block size setting command; and

determining a new block size which is not more than

the capacity of the data buffer in the electronic apparatus based on a response corresponding to the inquiring command and transmitting a command for specifying the new block size to the electronic apparatus.

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15. The control method of the host device according to claim 14, wherein the time which has a predetermined relation is the time when the host device transmits a command for actually transmitting or receiving the data created by dividing the data with the predetermined length or more according to the block size to the electronic apparatus.

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16. The control method of the host device according to claim 14, wherein the time which has the predetermined relation is the time when the host device transmits a command next to the block size setting command to the electronic apparatus.

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